

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A method for producing an aluminum/ceramic bonding substrate, said method comprising the steps of:

causing a solid aluminum member having a purity of 99.9% or more to contact at least one side of a ceramic substrate; and

thereafter, heating the solid aluminum member and the ceramic substrate, which contacts the solid aluminum member, at a temperature of 620 to 650 °C in an inert gas to bond the solid aluminum member directly to the ceramic substrate.

Claim 2 (previously presented): A method for producing an aluminum/ceramic bonding substrate, said method comprising the steps of:

causing a solid aluminum member having a purity of 99.5% or more to contact at least one side of a ceramic substrate; and

thereafter, heating the solid aluminum member and the ceramic substrate, which contacts the solid aluminum member, at a temperature of 620 to 650°C in an inert gas to bond the solid aluminum member directly to the ceramic substrate,

wherein said ceramic substrate is a ceramic substrate containing aluminum nitride as a principal component.

Claim 3 (original): A method for producing an aluminum/ceramic bonding substrate as set forth in claim 1, wherein said ceramic

substrate is a ceramic substrate containing alumina as a principal component.

Claim 4 (cancelled).

Claim 5 (original): A method for producing an aluminum/ceramic bonding substrate as set forth in claim 1, wherein said inert gas is nitrogen gas.

Claim 6 (currently amended): An aluminum/ceramic bonding substrate comprising:

a ceramic substrate; and

~~an~~ a solid aluminum member having a purity of 99.5 % or more, said solid aluminum member being bonded directly to at least one side of said ceramic substrate by heating the solid aluminum member and the ceramic substrate after causing the solid aluminum member to contact the ceramic substrate,

wherein a peel strength between said aluminum member and said ceramic substrate is 49 N/cm or more.

Claim 7 (original): An aluminum/ceramic bonding substrate as set forth in claim 6, wherein said ceramic substrate is a ceramic substrate containing aluminum nitride as a principal component.

Claim 8 (original): An aluminum/ceramic bonding substrate as set forth in claim 6, wherein said ceramic substrate is a ceramic substrate containing alumina as a principal component.

Claim 9 (original): An aluminum/ceramic bonding substrate as set forth in claim 6, wherein said purity of said aluminum member is 99.9 % or more.

Appln. No. 10/673,993
Amdt. dated June 2, 2005
Reply to Office action of March 3, 2005

Claim 10 (original): A power module using an aluminum/ceramic bonding substrate as set forth in claim 6.